

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L6	3234	((Motion or movement) same (sensing or sensor or detect or detecting or detection or detector)) and (Microwave or radar or doppler) and (Scan or scanned or scanning or scanner) and antenna	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:05
L7	188656	breathe or breath or breathing or respire or respiring or respiration or respiratory or ((exhale or exhaling) and (inhale or inhaling))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:05
L8	276	L6 and L7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:05
L9	9	L8 and @ad<="20031212" and @pd>="20060306"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:06
L12	479	(342/22).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/26 14:06
L13	13	L7 and L12	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:06
L14	0	L13 and @ad<="20031212" and @pd>="20060306"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:06
L15	2538	((342/22) or (342/28) or (342/114) or (342/115) or (342/160) or (342/162) or (600/534) or (340/554)).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/26 14:06
L16	2538	L15	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:06

## EAST Search History

L17	35	16 and @ad<="20031212" and @pd>="20060306"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:09
L18	479	(342/22).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/26 14:09
L19	161	L18 and ((scan or scanned or scanning or scanable) same antenna)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:09
L20	742605	portable or (hand adj held) or handheld or hand-held	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:09
L21	58	L19 and L20	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:09
L22	1	L21 and @ad<="20031212" and @pd>="20060306"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:10
L29	3234	((Motion or movement) same (sensing or sensor or detect or detecting or detection or detector)) and (Microwave or radar or doppler) and (Scan or scanned or scanning or scanner) and antenna	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:11
L30	188656	breathe or breath or breathing or respire or respiring or respiration or respiratory or ((exhale or exhaling) and (inhale or inhaling))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:11
L31	276	L29 and L30	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:11

## EAST Search History

L32	147	L31 and (radar)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:11
L33	145015	(antenna or array) same (movable or moving or tracking or scanning)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:11
L34	100	L32 and L33	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:11
L35	1	L34 and @ad<="20031212" and @pd>="20060306"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:16
L36	4	greneker-eugene-\$.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:12
L37	1	asbell-oscar-david.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:12
L38	2	geisheimer-jonathan-l.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:16
L39	49	((Motion or movement) same (sensing or sensor or detect or detecting or detection or detector) and (breathe or breath or breathing or respire or respiring or respiration or respiratory or ((exhale or exhaling) and (inhale or inhaling))) and (Scan or scanned or scanning or scanner)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:16

## EAST Search History

L40	2	L39 and @ad<="20031212" and @pd>="20060306"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:17
L41	34	L39 and @ad<="20031212"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/26 14:17

# SEARCH NOTES FOR EAST, IEEE, INSPEC, IP.COM, AND PROQUEST

**SERIAL NUMBER**

10735478

Updated 26 NOV 2006

## **EAST SEARCH**

EAST: search history attached

Search terms:

(Motion or movement) same (sensing or sensor or detect or detecting or detection or detector)

Microwave or radar or doppler

Scan or scanned or scanning or scanner

antenna

breathe or breath or breathing or respire or respiring or respiration or respiratory or ((exhale or exhaling) and (inhale or inhaling))

digital adj shaft same (encode or encoding or encoder)

1. (Currently Amended) A system for detecting a respiration signal of at least one subject in a target area, comprising: a scanning antenna to transmit a microwave signal across the target area, wherein the scanning antenna receives a reflected microwave signal from the at least one subject; a control system to track the position of the scanning antenna as the scanning antenna transmits the microwave signal while the position of the scanning antenna mechanically and continuously rotates; a signal processing system to detect the respiration signal of the at least one subject from the reflected microwave signal that is received by the scanning antenna.

((Motion or movement) same (sensing or sensor or detect or detecting or detection or detector) and (breathe or breath or breathing or respire or respiring or respiration or respiratory or ((exhale or exhaling) and (inhale or inhaling)))) and (Scan or scanned or scanning or scanner)).clm.

## IEEE SEARCH

Sun, 26 Nov 2006, 2:55:51 PM EST

### Recent Search Queries

Results

#1

((breathe <or> breath <or> breathing <or> respire <or> respiring <or> respiration <or> respiratory <or> exhale <or> exhaling <or> inhale <or> inhaling) <and> (motion <or> movement) <and> (sensing <or> sensor <or> detect <or> detecting <or> detection <or> detector) <and> (microwave <or> radar <or> doppler))<in>metadata)

28

**No new relevant documents found.**

## INSPEC SEARCH

Search history:

No.	Database	Search term	Info added since	Results	
CP		[Clipboard]		0	-
1	INZZ	(breathe OR breath OR breathing OR respire OR respiring OR respiration OR respiratory OR exhale OR exhaling OR inhale OR inhaling) AND (motion OR movement) AND (sensing OR sensor OR detect OR detecting OR detection OR detector) AND (microwave OR radar OR doppler)	unrestricted	29	

**No new relevant documents found.**

## IP.COM SEARCH

**Search query:** (breathe OR breath OR breathing OR respire OR respiring OR respiration OR respiratory OR exhale OR exhaling OR inhale OR inhaling) AND (motion OR movement) AND (sensing OR sensor OR detect OR detecting OR detection OR detector) AND (microwave OR radar OR doppler)

**No new relevant documents found.**

## PROQUEST SEARCH

71 documents found for: ((breathe OR breath OR breathing OR respire OR respiring OR respiration OR respiratory OR exhale OR exhaling OR inhale OR inhaling)) AND ((motion OR movement)) AND ((microwave OR radar OR doppler))

**"X-ray specs could change the rules of rescue", Anonymous. Design**

Engineering. Toronto:Aug/Sep 2003. Vol. 49, Iss. 7, p. 22

**"RADAR flashligh aids police in search for suspects"**, *Anonymous*. **Microwaves & RF**. Cleveland:Jul 2001. Vol. 40, Iss. 7, p. 28 (1 pp.)

**Radar to detect human presence TECHNOLOGY WORTH WATCHING :[London edition]**  
*Harvey, Fiona*. **Financial Times**. London (UK):May 3, 2001. p. 13

**Gadget sees through concrete 'Radar flashlight' detects criminals :[FINAL Edition]**  
*Dan Vergano*. **USA TODAY**. McLean, Va.:Apr 26, 2001. p. D.08

**SEE THROUGH SOLIDS**  
**Electonics Times**. London:Apr 23, 2001. p. 1

**Better RADAR; Tools: Firms are developing a new kind of X-ray vision. :[FINAL Edition]**  
*Frank D. Roylance*. **The Sun**. Baltimore, Md.:Aug 24, 1998. p. 1C

**"Hand-held radar device detects breathing, heartbeats"**, *Anonymous*. **Design News**. Boston:Jan 19, 1998. Vol. 53, Iss. 2, p. 36 (1 pp.)

**Every beat of your heart...**  
*Anjana Ahuja*. **The Times**. London (UK):Oct 15, 1997. p. Interface 6

**Police radar detects criminals trying to hide insidebuildings**  
*Sean Hargrave*. **Sunday Times**. London (UK):Sep 28, 1997. p. Money 11

**Life detector (radar device that can detect heart and breathing movements)**  
**Popular Science**. New York:Aug 1989. Vol. 235, Iss. 2, p. 59